

MELKA, J.

Reaction of homo-thermal organism to cold and adaptation thresholds.  
Cesk. fysiол. 7 no.4:343-344 July 58.

1. Katedra fysiologie VIA, Hradec Kralove.

(COLD,

adaptation in non-hibernating animals, thresholds (Cz))

MELKA, Jaroslav, prof. MUDr.

Contribution to data on the effect of the central nervous system, especially the cerebral cortex, on basal oxygen consumption and the specific dynamic action of proteins. Sborn. ved. prac. lek. fak. Karlov. univ. (Hrad Kral) (Suppl) 5 no.2/3:111-203 '62.

(CEREBRAL CORTEX) (TISSUE METABOLISM)  
(ENERGY METABOLISM) (PROTEINS) (BASAL METABOLISM) (SEASONS)  
(REFLEX CONDITIONED) (BROMIDES) (FEVER)

MELKA, J.; PEREGRIN, J.; HAVEL, V.; SKRANC, O.; SIMEK, J.; VESELY, C.

Attempted determination of fatigue during the course of a very strenuous physical work. Pracovni lek. 14 no.5:231-235 Je '62.

1. Katedra fyziologie lebarske fakulty Karlovy university v Hradci Kralove, prednosta prof. MUDr. J. Melka.  
(FATIGUE)

MELKA, Jaroslav; PEREGRIN, Jaroslav.

An attempt at normalization of the process of excitation in the brain cortex of rats during low pressure hypoxia. Sborn. ved. prac. lek. fak. Karlov. Univ. (Hrad. Kral.) 6 no. 2: Supplement: 275-282 \*63.

1. Department of Physiology, Charles University, Faculty of Medicine at Hradec Kralove.

\*

MELKA, Jaroslav; SIMEK, Josef

Development of changes in the excretory function of liver tissue after subtotal hepatectomy. Sborn. ved. prac. lek. fak. Karlov. univ. (Hrad. Kral.) 6 no.5 suppl.:543-550 '63

1. Katedra fyziologie; (prednosta: prof. MUDr. J. Melka) Univerzita Karlova v Hradci Kralove.

MELKA, Jaroslav; Technicka spoluprace: VEVERKOVA, O.

The connecting function of the brain in old rats under difficult circumstances. Sborn. ved. prac. lek. fak. Karlov. Univ. 9 no.1: 449-458 '64.

1. Katedra fyziologie (prednosta: prof. MUDr. J. Melka),  
Karlov University v Hradci Kralove.

NADVORNIK, P.; MELKA, J.; VESELY, C.; PELIKAN, V.; DROZEN, V.

Remarks on the choice of variables in the nerve cell model.  
Kybernetika 1 no.1:50-55 '65.

1. Faculty of Medicine of the Charles University, Hradec  
Kralove. Submitted June 22, 1964.

MELKA, J.

Conditioning in rats of different age. Aktiv. nerv. sup.  
(Praha) 7 no.2:121-122 '65

1. Department of Physiology, Medical Faculty of Charles  
University, Hradec Kralove.



MELKA, Jaroslav; SIMEK, Josef; Technicka spoluprace: KRAUSOVA, B.;  
TICHA, H.

Functional efficiency of regenerating liver tissue in rats of  
different age groups. I. Study of the basal values of bile  
and endogenous bilirubin excretion. Sborn. ved. prac. lek. fak.  
Karlov. Univ. 9 no.1:441-448 '64.

1. Katedra fyziologie (prednosta: prof. MUDr. J. Melka)  
Karlov University v Hradce Kralove.

L 3053-66 EEC(k)-2

ACCESSION NR: AP5026742

CZ/0088/65/000/001/0050/0055

AUTHOR: Nadvornik, P.; Melka, J.; Vesely, G.; Pelikan, V.; Drozen, V.

TITLE: Remarks on the choice of variables in the model of the nerve cell

SOURCE: Kybernetika, no. 1, 1965, 50-55

TOPIC TAGS: neuron, bionics, neurology

Abstract [authors' Czech and English summaries, modified]: A brief review is presented of the present knowledge about the structure, chemical composition and functions of the neuron. Most models of the neuron take into account excitatory and inhibitory synapses and therefore model positive and negative pulses. However, the pulses in the living nerve cell and in the nerve passages are always of the same type and character. Therefore the authors decided to model the biological neuron according to the 1903 theory of N.Ye. Vvedenskiy (Archiv fur die gesamte Physiologie, Vol 100, 1903, pp 1-144), with minor modifications to update it. This theory essentially distinguishes three basic variables in the system of the nerve cell: the frequency-modulated information transmission, the elementary memory, and the monistic approach to excitation and inhibition which regards inhibition as a special state of the excitation of the nerve cell.

Card 1/2

L 3053-66

ACCESSION NR: AP5026342

ASSOCIATION: Lekarska fakulta Karlovy university, Hradec Kralove (Medical Faculty  
of Charles University)

SUBMITTED: 22Jun64

ENCL: 00

SUB CODE: LS

NO REF SOV: 002

OTHER: 012

JPRS

  
Card 2/2

MELKA, J.; PEREGRIN, J.; SIMEK, J.; SKRANC, O.; VESELY, C.; HAVEL, V.

The influence of the work day on the higher nervous activity of man in the framework of complex physiological analysis. (Summary of the final report). Activ. nerv. sup. (Praha) 7 no.1:65-66 '65.

L 12962-66

SOURCE CODE: CZ/0079/65/007/002/0121/0122

ACC NR: AP6005625

AUTHOR: Melka, J.

ORG: Department of Physiology, Medical Faculty, Charles University, Hradec Kralove

TITLE: Conditioning of rats of different ages [This paper was presented at the Third Interdisciplinary Conference on Experimental and Clinical Study of Higher Nervous Functions held in Marianske Lazne from 19 to 23 October 1964.]

SOURCE: Activitas nervosa superior, v. 7, no. 2, 1965, 121-122

TOPIC TAGS: rat, conditioned reflex, reflex activity

ABSTRACT: The brain connecting function in rats was evaluated according to the speed of conditioned avoidance reflexes (AR). Rats were kept at constant temperature, received a standard Larsen diet; their ages were 2 to 32 months. Each rat had one session per day with 5 presentations, with 2 positive and 1 negative signals. Rats aged 4-5 weeks had a connecting function inferior to adult rats (9 months old). Male rats of older age (18-24 months) had a slower AR formation than 9-month-old rats. 18-month-old female rats did not differ from 9-month-old ones; slowing down was noticed only in 24-month-old ones. In 29-32-month-old rats, both male and female showed a significant slowing down of AR formation. Reactions to visual stimuli was higher than to auditory ones, below that age the exact opposite was true. At lower atmospheric pressure (353 mm Hg) reproduction of pre-

Card 1/2

L 12962-66

ACC NR: AP6005625

viously formed AR was more impaired in older rats. [JPBS]

SUB CODE: 06, 05 / SUBM DATE: none / ORIG REF: 001 / OTH REF: 003

Card 2/2 HW

MELKA, Jaroslav

The neuron. Sborn. ved. prac. lek. fak. Karlov. Univ. (Hrad. Kral.)  
7 no.5:Suppl.:428-431 '64.

1. Katedra fyziologie (prednsota prof. MUDr. J. Melka).

MELKA, Jaroslav. Technicka spoluprace VEVERKOVA, O.

Connecting function of the rat brain after resection of one cerebral hemisphere. Sborn. ved. prac. lek. Karlov. Univ. 8 no.3:383-393 ' 65.

1. Katedra fyziologie (prednosta: prof. MUDr. J. Melka)  
Karlov University v Hradci Kralove.



SIMEK, J.; MELKA, J.; POSPISIL, M.; NERADILKOVA, M.

Effect of protracted glucose infusion on the development of early biochemical changes and initiation of regeneration in rat liver after partial hepatectomy. *Physiol. Bohemoslov.* 14 no.4:366-370 '65.

1. Department of Physiology and Department of Anatomy, Faculty of Medicine, Charles University, Hradec Kralove. Submitted May 25, 1964.

CZECHOSLOVAKIA

SIMEK, J., LEJSEK, K., SEDLACEK, J., MELKA, J., HAYS, I.M;  
Chair of Physiology, Chair of Medical Chemistry, Chair of  
Experimental Physiology, Medical Faculty, Charles University,  
(Katedra Fysiologie, Katedra Lekarske Chemie, Katedra Experiment-  
alni Fysiologie, Lek. Fak. KU), Hradec Kralove.

"Respiration Metabolism of Sections and Succinate Oxidase Activity  
of Isolated Mitochondria in Livers of Rats of Different Ages After  
Partial Hepatectomy."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 2, Feb 66, pp 130-131

Abstract: Experiments conducted on 36 male rats aged 3 to 24  
months are described. Partial hepatectomy resulted in an increase  
of oxygen consumption, the succinate oxidase activity was  
decreased. Older rats that underwent a removal of 65-70% of  
the liver were able to modify their energy and material metab-  
olism to such an extent that a nearly normal liver regeneration  
took place. 1 Figure, 5 Western, 1 Czech reference. Submitted  
at the Full Meeting of the Physiological Section of the Czecho-  
slovak Medical Society of J.E.Purkyne at Hradec Kralove, 8 Sep 65.

1/1

CZECHOSLOVAKIA

SIMEK, J., LEJSEK, K., SEDLACEK, J., MELKA, J., HAIS, I.M;  
Chair of Physiology, Chair of Medical Chemistry, Chair of  
Experimental Physiology, Medical Faculty, Charles University  
(Katedra Fysiologie, Katedra Lekarske Chemie, Katedra Experiment-  
alni Fysiologie Lek. Fak. KU), Hradec Kralove.

"Respiration Metabolism of Liver Slices and Succinate Oxidase  
Activity of Isolated Liver Mitochondria in Rats Irradiated With  
1400r Following Partial Hepatectomy."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 2, Feb 66, pp 132-133

Abstract: The weight of the liver was reduced 65-70% by  
hepatectomy, and the irradiation took place 6 hours later. Samples  
were taken 42 hours after irradiation; during this period no food  
was given to the rats. Irradiation did not influence the  
changes in composition of the liver and its metabolism modifica-  
tion resulting from the hepatectomy. 1 Figure, 5 Western,  
2 Czech references. Submitted at the full Meeting of the  
Physiological Section of the Czechoslovak Medical Society of  
J.E.Purkyne, at Hradec Kralove, 6 Oct 65.

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CZECHOSLOVAKIA

SIMEK, J., MELKA, J., TOMANA, M; Chair of Physiology and Chair of Medical Chemistry, Medical Faculty, Charles University (Katedra Fysiologie a Katedra Lekarske Chemie Lek. Fak. KU) Hradec Kralove.

"Glycemia, Weight Changes of the Hypophysis, Adrenal Glands, and Content of Ascorbic Acid in Adrenal Glands After Administration of Insulin to Rats that Underwent a Partial Hepatectomy."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 2, Feb 66, p 135

Abstract: Experiments were conducted on male rats after 65-70% of their liver was removed. Insulin was injected immediately after the operation. It caused a deeper hypoglycemia in the first 6 hours after operation, a higher increase of the weight of the hypophysis and adrenal glands, and a greater decrease in ascorbic acid content in the adrenal glands than was found in animals that underwent hepatotectomy but were not given insulin. 2 Western, 2 Czech references. Submitted at the full Meeting of the Physiological Section of the Czechoslovak Medical Society of J.E.Purkyne at Hradec Kralove, 1 Dec 65.

1/1

MELKA, Josef

"Efforts Concerning Mechanization and Automatization in Chemistry", P. 5,  
(TECHNICKÉ NOVINY, Vol. 2, No. 17, September 1974, Praha, Czech.)

SC: Monthly List of East European Accessions (ELAI), IC, Vol. 4, No. 3,  
March 1955, Uncl.

Z/006/60/000/027/001/004  
D005/D102

AUTHOR: Melka, Josef

TITLE: Mile stones of Slovakia. Foreign countries can envy us  
for Slovnaft

PERIODICAL: Technické noviny, no. 27, 1960, 3

TEXT: A large petrochemical combine named Slovnaft has been under construction in Vičie Hrdlo for several years. Its construction is carried out in two stages. The first stage includes construction of oil and fuel processing installations; the second stage is the petrochemical plant. Intensive building activity started in 1958 following an agreement under which the USSR guaranteed delivery of petroleum to the ČSSR. The following production and auxiliary installations were scheduled to be put into operation during 1960: Heat and power plant; water works including distribution system (largest in the ČSSR); thermal cracking plant with coke production; asphalt oxidation section; selective refining section; "hot contact" section; reforming section; distilling plant no. III; most of the storage tanks for raw materials and finished products; plant RR station; and

Card 1/2

Mile stones of Slovakia

Z/006/60/000/027/001/004  
D005/D102

personal services facilities. In addition to oils and fuels, the combine will also produce sulphuric acid, while purified gases will be used for production of plastics and basic organic raw materials. Petroleum will be stored in storage tanks with capacities from 6,000 to 20,000 m<sup>3</sup> which will be connected to a pipe line to be completed by January 1, 1962. The combine will have its own waste-water purifying plant and a plant RR system with 40 km of track. Construction of mechanical workshops will secure production of spare parts, medium and major repairs, and overhauls. It is also intended to introduce production of refinery equipment and measuring and regulating instruments. The petrochemical plant will be completed and put into operation during 1964. It will produce phenol, quality hard plastic materials, polyethylene and polypropylene. Czechoslovak delegates to the recent World Petroleum Congress in the US stated that the technology selected for the new combine meets the highest world standards, especially since it is suitable for conversion to complete automation of individual production processes scheduled for 1966 and 1967. There is 1 figure.

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Z/006/60/000/029/001/002  
D006/D102

AUTHOR: Melka, Josef

TITLE: Doctor Miloš Seidl

PERIODICAL: Technické noviny, no. 29, 1960, 1

TEXT: After several years of theoretical and experimental studies, Doctor Miloš Seidl succeeded in finding a final explanation of the mechanism by which electrons, injected into a betatron accelerator, are captured in a steady path. While working on the development of a Czechoslovak 15 Mev betatron accelerator at the Výzkumný ústav vakuové elektroniky (Vacuum Electronics Research Institute), he discovered that electron oscillation originating at the electron injection was the mechanism sought for by scientists for almost 40 years. Through his discovery a considerable increase of gamma-radiation intensity of accelerators has been made possible. He presented a paper on his discovery at the Second International Conference on Peaceful Uses of Atomic Energy held in Switzerland in September 1959. In his recent paper he corrected his original hypothesis on the origin of electron oscillation. For his scientific work Doctor Seidl

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Z/006/60/000/029/001/002  
D006/D102

Doctor Miloš Seidl

was awarded the Order of Labor in 1958, and the Klement Gottwald  
State Prize in May 1959. There is 1 figure.

Card 2/2

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MELKA, KAREL

Crystal structure of chlorite. Karel Melka (Univ. of  
Geol., Prague). *Časopis mineral. geol.* 1, 361-364  
(1958).—A review with 10 references. Michael Fleischer

fra  
anf

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MELKA, Karel

Bivariant method for determining the indexes of mineral refraction.  
Rozpravy mat CSAV 71 no.4:3-59 '61.

FEDIUKOVA Eva; MELKA, Karel

Heating cell for refraction index measurement on the Fjedor  
universal stage. Vest Ust geol 39 no. 1: 35-36 '64.

1. Ustredni ustav geologicky, Praha.

MELKA, Karel

Present state of the research on chlorites and serpentine  
minerals. Vest ust geol 39 no.2:81-93 Mr'64

MELKA, ZDENTY, 1925. (Praga)

Reinforced concrete ties on Czechoslovak railroads. Put' 1  
put.khoz. 5 no.11:45-48 N '61. (MIRA 14-12)

1. Otdel putevogo khozyaystva Ministerstva putey soobshcheniya  
Chekhoslovatskoy Sotsialisticheskoy Respubliki.  
(Czechoslovakia--Railroads--Concrete)

KASHAKASHVILI, N.V.; GLADKOSKOK, P.P.; KHOSHTARIYA, Sh.F.; MINDELI, M.Sh.

Prinimali uchastiy: PARASTASHVILI, V.V.; KOBERIDZE, V.G.;  
CHKHEIDZE, Z.A.; RUKHADZE, E.A.; KENKEBASHVILI, O.A.; SHARASHIDZE,  
S. Sh.; GOGISHVILI, A.G.; MELKADZE, N.V.; DZAMASHVILI, A.V.;  
GORDEZIANI, N.N.; ABRAMISHVILI, R.N.

Performance of Transcaucasia Metallurgical Plant blast fur-  
naces operating on natural gas. Trudy GPI [Gruz.] no.4:11-23  
\*62 (MIRA 17:8)

MELKADZE, Yo. Ya.

Dissertation: "Effect of Meteorological Conditions on Changes of Chemical Composition of Sunflower Seeds." Cand Biol Sci, Georgian Agricultural Inst, 27 Apr 54.  
(Zarya Vostoka, Tbilisi, 14 Apr 54)

SO: SUM 240, 19 Oct 1954



MEL' KANOVITSKAYA, S. G.

Condensation of  $\alpha$ -acetate with benzene in the presence of aluminum chloride. I. P. Tashkentskiy and S. G. Mel'kanovitskaya (Central Asia State Univ., Tashkent, U.S.S.R.), *Chem. Abstr.* 23, 1035-8 (1943). Under all conditions the condensation of  $C_6H_6$  with  $CH_3CH_2COAc$  (I) in the presence of  $AlCl_3$  yields up to 50%  $PhCH_2CHMePh$ . At  $4-6^\circ$  the intermediate  $MeCHPhCH_2OAc$  (II) can be detected, indicating that the 1st step in the reaction is the addn. to the double bond. Thus, to 80 ml.  $C_6H_6$  and 19.1 g.  $AlCl_3$  was slowly added 10 g. I in 20 ml.  $C_6H_6$  with ice-cooling and the mixt. stirred 2 hrs. treated with dil. acid and distd., yielding 58%  $PhCH_2CHMePh$ , b.  $123-30^\circ$ . To 15 g. I in 160 ml.  $C_6H_6$  was added over 2.5 hrs. 24.2 g.  $AlCl_3$  and the mixt. stirred 2 hrs. longer at  $4-6^\circ$ ; it yielded 38%  $PhCH_2CHMePh$  and 8.4 g. material, b.  $114-28^\circ$ , contg. some 54% II; sapon. of this fraction gave  $MeCHPhCH_2OH$ , b.  $112-14^\circ$ , d.  $1.0082$ ,  $n_D^{20}$  1.5275; *p*-nitrobenzoate, m.  $61-2^\circ$ . Pure  $PhCH_2CHMePh$ , b.  $123-30^\circ$ , d.  $0.9818$ ,  $n_D^{20}$  1.5581.  $AcPh$  with  $PhCH_2MgCl$  gave 66%  $PhCH_2CH(OH)MePh$ , dehydrated over  $Al_2O_3$  at  $300^\circ$  to 46%  $PhCH_2CH=MePh$ ; a 79% yield resulted on refluxing the carbinol with  $Ac_2O-AcCl$ . Reduction of the stilbene with  $Na-EtOH$  gave 85% authentic  $PhCH_2CH_2Ph$ , b.  $128-0^\circ$ , d.  $0.9787$ ,  $n_D^{20}$  1.5581. Nitration of the latter at  $100^\circ$  with  $HNO_3$  (d. 1.075) 18-20 hrs. gave the nitro deriv., m.  $153^\circ$ , also formed from the product of the condensation with  $AlCl_3$  described above. G. M. Kosolapoff

MEL'KANOVITSKAYA, S.G.; TSUKERVANIK, I.P.

*Homolytic alkylation of aromatic series. Izv. AN Uz. SSR. Ser.  
khim. nauk. no. 3:51-66 '57. (MIRA 11:9)*

1. Chlen-korrespondent AN UzSSR (for TSukervanik).  
(Alkylation)

MELKOVITSKY, S. G.

Radical and ionic alkylation of the aromatic nucleus. IV. Benzoylation of guaiacol, toluene, and benzene. L. P. Tsukerman and S. G. Melkovitsky. *Zhur. Obshch. Khim.* 37, 885-9 (1967). Heating 8.2 g. guaiacol with 8.0 g.  $\text{PhCH}_2\text{Cl}$  8 hrs. finally to  $200^\circ$  gave 21.6% benzylguaiacol,  $b_p$  195-203°, and 1.3 g. crude dibenzylguaiacol,  $b_p$  200-40°. In a sealed tube in 8-9 hrs. at  $200-10^\circ$  the above mixt. gave 37.8% benzylguaiacol. Heating 8.6 g.  $\text{PhCH}_2\text{Cl}$ , 8.2 g. guaiacol, and 0.43 g. Cu 8 hrs. at  $100-60^\circ$  gave 29.5% benzylguaiacol and 41.5% dibenzylguaiacol; the pure products  $b_p$  200.5°,  $d_4$  1.182,  $n_D^{20}$  1.5889, and m. 107.5-8.5°, resp. Heating the benzylguaiacol in pyridine with  $\text{BzCl}$  gave a benzoate, m. 96.5-7.5°. Heating  $\text{PhCH}_2\text{Cl}$  and  $\text{MePh}$  8-9 hrs. to  $240-80^\circ$  gave 60.6% *p*-benzyltoluene,  $b_p$  141-5°, and higher boiling products. Refluxing 6.8 g.  $\text{PhCH}_2\text{Cl}$ , 61 g.  $\text{MePh}$ , and 0.35 g. Cu 16 hrs. gave 75.5% *p*-benzyltoluene,  $b_p$  143-5°,  $b_p$  146-7°,  $d_4$  0.9922,  $n_D^{20}$  1.5715. Heating 10.1 g.  $\text{PhCH}_2\text{Cl}$  and 14 g.  $\text{C}_6\text{H}_6$  to  $300-10^\circ$  in an autoclave in a glass ampul gave 13.4%  $\text{Ph}_2\text{CH}_2$  and oil, b.  $270-335^\circ$ , which gave a solid, m.  $80-81^\circ$ , which gave mixed *o*- and *p*-dibenzylbenzenes, m.  $80-4^\circ$ . Refluxing 6.8 g.  $\text{PhCH}_2\text{Cl}$ , 12.6 g.  $\text{C}_6\text{H}_6$ , and 0.35 g. Cu 12 hrs. gave 22%  $\text{Ph}_2\text{CH}_2$  and 0.9 g. mixed *o*- and *p*-dibenzylbenzenes. Refluxing 20.4 g.  $\text{PhCH}_2\text{Cl}$ , 38 g.  $\text{C}_6\text{H}_6$ , and 2.1 g. Cu bronze powder 12 hrs. gave 27.6%  $\text{Ph}_2\text{CH}_2$ , 10.7% mixed *o*- and *p*-dibenzylbenzenes, and higher boiling products. Fractionation of the *o-p* isomers gave *p*-dibenzylbenzene, m.  $84-3^\circ$ , and *o*-isomer, m.  $75-8^\circ$ . Heating 18 g.  $\text{PhCH}_2\text{Cl}$ , 21.6 g.  $\text{BzOMe}$ , and 4.2 g. powd. Cu 2 hrs. at  $130^\circ$  gave  $\text{BzOH}$  and  $(\text{PhCH}_2)_2$ . Similar reaction of  $\text{PhCH}_2\text{Cl}$  with  $\text{BzH}$  gave  $(\text{PhCH}_2)_2$ ,  $\text{BzOH}$ , and much tar. Heating  $(\text{PhCH}_2\text{N})_2$  in a sealed tube to  $200-10^\circ$  gave gases contg.  $\text{NH}_3$ ,  $(\text{PhCH}_2)_2$ , stilbene, and a substance,  $\text{C}_8\text{H}_8$ , m.  $170.6-80.5^\circ$ . Heating  $(\text{PhCH}_2\text{N})_2$  in  $\text{PhNO}_2$   $12-13$  hrs. at  $145-55^\circ$  gave  $\text{PhNH}_2$ , stilbene, and crystals, m.  $161-3^\circ$ . It is suggested that the above alkylations proceed homolytically but without formation of free radicals. Benzoylation

Distr: 4E4j/4E2c(j)/4E3d

8  
2 May  
3

1/2

*Tsukervanik, I. P. and Mel'nikov, I. S.*

of naphthalene. I. P. Tsukervanik and G. S. Semeshko (Central Asia State Univ., Tashkent). *Izv.* 1143-4. Heating  $C_{10}H_8$  (20 g.) with 6 g.  $PhCH_2Cl$  8 hrs. at 180-220° until HCl evolution subsided gave 60% 1- $C_{10}H_7CH_2Ph$ , m. 58°, b. 160-70°, and 14%  $C_{10}H_7CH_2Ph$ . Heating 25 g.  $C_{10}H_8$ , 10.5 g.  $PhCH_2Cl$ , and 8.5 g.  $ZnCl_2$  8 hrs. at 80-90° gave 2- $C_{10}H_7CH_2Ph$  (0.04 g.), 1- $C_{10}H_7CH_2Ph$  (11.5 g.), and 20%  $C_{10}H_7CH_2Ph$ ; the same reaction in 2 hrs. at 150° gave 49% 1- $C_{10}H_7CH_2Ph$ . Heating 28 g.  $C_{10}H_8$ , 13 g.  $PhCH_2Cl$ , and 9.5 g.  $Cu$  2 hrs. at 90° gave 60% 1- $C_{10}H_7CH_2Ph$  and 13%  $C_{10}H_7CH_2Ph$ . To 20.8 g.  $C_{10}H_8$  and 9.5 g.  $PhCH_2Cl$  was added at 70° gradually 0.8 g.  $AlCl_3$ ; after 8 min. at 70-80° the mixt. was treated with hot  $H_2O$  yielding 25% 2- $C_{10}H_7CH_2Ph$ . In all cases tarry or oily byproducts were also formed. Pure 1- $C_{10}H_7CH_2Ph$  b.p. 350°, b. 167°, m. 57-8°; picrate, m. 100°. Oxidation with 60%  $HNO_3$  gave 1- $C_{10}H_7Bz$ , m. 75°. Pure 2- $C_{10}H_7CH_2Ph$  m. 54.5-5° (EtOH); picrate, m. 93°. The dibenzyl deriv. was identified as 1,8-dibenzyl-naphthalene, b.p. 280-300°, m. 144° (EtOH). In the reaction using  $Cu$ -catalyst, some 80% of it is converted to  $Cu_2Cl_2$ , but  $Cu_2Cl_2$  *per se* does not catalyze the alkylation. The above described alkylations which gave the 1-isomer predominantly probably do not go by an ionic route. The benzylation in these cases may proceed through a complex which is cleaved homolytically. G. M. Kasolapoff

8  
3 May  
3

2/2

PM

2. MEL'KANOVITSKAYA, S.G., Cand Chem Sci -- (diss) " *Homonalytic*  
alkylation of <sup>an</sup> ~~the~~ aromatic nucleus." Tashkent, Publishing House  
Acad Sci UzSSR, 1958. 14 pp. (Acad Sci UzSSR. Inst of Chemistry.)  
150 copies.  
(KL, 12-58, 96)

-21-

MEL'KANOVITSKAYA, S. G.

AUTHORS: Mel'kanovitskaya, S. G., Tsukervanik, I. P. 79-1-3, '63

TITLE: Radical and Ionic Alkylation of the Aromatic Nucleus  
(Radikal'noye i ionnoye alkilirovaniye aromaticheskogo yadra)  
VI. Reactions of Diphenylchloromethane With Toluene and  
Benzene (VI. Reaktsii difenilkhlorometana s toluenom i  
benzolom)

PERIODICAL: Zhurnal Obshchey Khimii, 1959, Vol. 29, Nr 1, pp. 11-15  
(USSR)

ABSTRACT: In the further investigation whether a copper catalyst can  
be used in alkylation the authors performed reactions with  
diphenylchloromethane. A short time before that they  
reported that they had succeeded in realizing the benzilation  
of a number of aromatic compounds in a thermal and  
catalytic way where they assumed that the homolytic  
regrouping takes place within the reaction complex without  
the formation of free radicals. The reason for their  
selection of diphenylchloromethane in the present work is  
to be seen in the insufficient investigation of the  
alkylation with haloidbenzhydryls as well as in the

Card 1/2

Radical and Ionic Alkylation of the Aromatic Nucleus

79-1-3, '63

## VI. Reactions of Diphenylchloromethane With Toluene and Benzene

endeavor to obtain supplementary results on the mechanism of the present reactions. They investigated the reactions of diphenylchloromethane with benzene and toluene in the presence of copper. As main products p-benzhydryltoluene (54%) was synthesized with toluene (0,1 equimolecular weight copper), tetraphenylethane (60%) with benzene (equimolecular weight copper). New experimental data are given which confirm the earlier existing opinion that no free radicals form in these reactions. The authors investigated the reactions of the thermal decomposition of diphenylchloromethane in aromatic compounds and in cyclohexane; for these a mechanism of free radicals was set up. There are 3 tables and 13 references, 3 of which are Slavic.

ASSOCIATION: Chemical Institute AM Uzbek SSR (Institut khimii Akademii nauk Uzbekskoy SSR)

SUBMITTED: January 2, 1957

AVAILABLE: Library of Congress

Card 2/2

1. Cyclic compounds 2. Cyclohexanes 3. Chemistry

SOV/77-26-8-7/66

AUTHORS: Mel'kanovitskaya, E. G., Tsukervanik, I. P.

TITLE: Radical and Ionic Alkylation of the Aromatic Nucleus  
(Radikal'noye i ionnoye alkilirovaniye aromaticeskogo yadra ) VII. Butylation of Benzene, Naphthalene, Phenol, and Anisole (VII. Butilirovaniye benzola, naftalina, fenola i anizola)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol. 28, Nr 8, pp. 2032-2038 (USSR)

ABSTRACT: In connection with a previous paper (Ref 1) this paper attempts to explain the peculiarity of the alkylation of different compounds with n-butyl chloride in the presence of copper. As an example the free radical butylation of anisole was investigated. n-Butylphenyltriazene was used as the source of free butyl radicals. In contrast to the benzylation and the reaction with diphenylchloromethane the butylation with copper proceeds much more difficultly (at 200-250°). In reacting n-butylchloride with benzene, naphthalene, phenol, and anisole the corresponding monobutyl and dibutyl aromatic compounds resulted, and in the case of phenol a butyl ether

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Radical and Ionic Alkylation of the Aromatic Nucleus. SOV/79-28-8-7/66  
VII. Butylation of Benzene, Naphthalene, Phenol and Anisole

of the butylphenol also resulted. Side products could not be determined. In every case it was the secondary butyl derivative which was produced. The proof of the structures was carried out by perbrominating and oxidizing. It was found that the alkylation product yield in the above reactions was 38-87 %. Thermal butylation also yielded alkyl derivatives. Under the experimental conditions used an isomerization of the primary butyl group to the secondary form always took place. The butylation of phenol follows the mechanism of indirect nuclear alkylation. Free butyl radicals produced by the thermal decomposition of n-butylphenyltriazenes can be used to alkylate the anisole nucleus. There are 4 tables and 25 references, 11 of which are Soviet.

ASSOCIATION: Institut khimii Akademii nauk UzSSR (**Institute of Chemistry AS UzSSR**)

SUBMITTED: July 12, 1957

Card 2/3

Radical and Ionic Alkylation of the Aromatic Nucleus. SOV/79-22-8-7,66  
VII. ~~By~~ylation of Benzene, Naphthalene, Phenol, and Anisole

Card 3/3

MEL'KANOVITSKAYA, S.G.; TSUKERVANIK, I.P.

Allylation of phenol compounds in the presence of a copper catalyst. Dokl. AN Uz. SSR no. 11:40-44 '59.

(MIRA 13:4)

1. Institut khimii AN UzSSR. 2. Chlen-korr. AN UzSSR (for Tsykervanik).

(Propene) (Eugenol)

RASHKES, Ya.V.; MEL'KANOVIYSKAYA, S.G.

Quantitative analysis of a mixture of eugenol, chavibetol, and o-eugenol using infrared spectroscopy. Zhur.anal.khim. 17 no.6:751-753 S '62. (MIRA 16:1)

1. Institut khimii rastitel'nykh veshchestv AN Uzbekskoy SSR, Tashkent.

(Eugenol--Spectra)

MEL'KANOVITSKAYA, S.G.; RASHKES, Ya.V.

Allylations of phenols and phenol ethers. Part 1: Alkylation  
of guaiacol in the presence of copper. Zhur.ob.khim. 32 no.7:  
2232-2237 J1 '62. (MIRA 15:7)

1. Institut khimii rastitel'nykh veshchestv AN Uzbekskoy SSR.  
(Guaiacol) (Eugenol)

NIKIFOROVA, I.S.; MEL'KANOVIISKAYA, S.G.

Identification of a mixture of eugenol and its isomers by the  
method of paper chromatography. Dokl. AN UzSSR. 21 no.3:  
23-27 '64. (MIRA 1961)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR. Submitted  
February 2, 1962.

MEL'KANOVIITSKAYA, S.G.

Allylation of phenols and phenol ethers. Part 2: Allylation of  
guaiacol acetate in the presence of copper. Zhur.org.khim. 1  
no.2:325-330 F '65. (MIRA 18:4)

1. Institut khimii rastitel'nykh veshchestv AN Uzbekskoy SSR.

NIKIFOROVA, I.S.; MEL'KANOVITSKAYA, S.G.

Allylation of phenols and phenol ethers. Uzb. khim. zhur. 9  
no. 4:23-27 '65. (MIRA 18:12)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR. Submitted  
June 29, 1964.



MEL'KANOVITSKAYA, S.G.; NIKIFOROVA, I.S.

Allylation of phenols and phenol ethers. Allylation of anisole, phenetole, and methylenedihydroxybenzene in the presence of copper. Uzb. khim. zhur. 9 no.5:29-35 '65. (MIRA 18:12)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR.

MEL'KANOVITSKIY, I. M., CAND GEOL ~~AND MINERAL~~ SCI, "PLU-  
TONIC GEOLOGICAL STRUCTURE OF THE CLOSED <sup>part</sup> ~~CONSTITUENT~~ OF PRI-  
TASHKENTSKIY RAYON, <sup>According to</sup> ~~IN ACCORDANCE WITH~~ DATA OF GEOPHYSICAL  
<sup>studies</sup> ~~INVESTIGATIONS.~~" TASHKENT, 1961. (MIN OF GEOLOGY AND MINERAL  
CONSERVATION USSR. CENTRAL ASIA SCI RES INST OF GEOLOGY AND  
MINERAL RAW MATERIAL). (KL-DV, 11-61, 213).

MEL'KANOVITSKIY, I.M.; KOSTROMINA, R.A.

Using geophysical data for mapping folds in the basement of the  
Tashkent trough. Uch.zap.SAIGIMS: no.5:119-125 '61. (MIRA 15:11)  
(Tashkent region--Folds (Geology)--Maps)

h0223

S/169/62/000/007/049/149  
D228/D307

9.6160

AUTHOR: Mel'kanovitskiy, I. M.

TITLE: The question of the method of single observations  
with two gravimeters

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 7, 1962, 27, ab-  
stract 7A175 (Uch. zap. Sredneaz. n.-i. in-t geol. i  
mineral'n. syr'ya, no. 5, 1961, 163-167)

TEXT: A method is proposed for single observations with two gra-  
vimeters. By processing the observations according to the method of  
least squares the technique allows the zero creep factors of both  
instruments to be determined from the formulas:

$$K' = \frac{\sum (\Delta t_i)^2 \cdot \sum \Delta t_i \cdot \Delta g_{ri} - \sum \Delta t_i \cdot \Delta t_i \cdot \sum \Delta t_i \cdot \Delta g_{ri}}{\sum (\Delta t_i)^2 \cdot \sum (\Delta t_i)^2 - \left( \sum \Delta t_i \cdot \Delta t_i \right)^2}$$

Card 1/2

The question of the ...

S/169/62/000/007/049/149  
D228/D307

$$K'' = \frac{\sum_{i=1}^n (\Delta t'_i)^2 \cdot \sum_{i=1}^n \Delta t'_i \cdot \Delta \Delta g_{ri} + \sum_{i=1}^n \Delta t'_i \cdot \Delta t''_i \cdot \sum_{i=1}^n \Delta t_i \cdot \Delta \Delta g_{ri}}{\sum_{i=1}^n (\Delta t'_i)^2 \cdot \sum_{i=1}^n (\Delta t''_i)^2 - \left( \sum_{i=1}^n \Delta t'_i \cdot \Delta t''_i \right)^2}$$

Here  $\Delta t'_i$  and  $\Delta t''_i$  are the respective time intervals for the first and the second instruments between observations at the beginning and at the end of the  $i$ -th interval;  $\Delta \Delta g_{ri} = \Delta g'_{ri} - \Delta g''_{ri}$  is the difference of the gravity increases, fixed by the first and the second instruments. The time  $\Delta t'_i$  must be distinguished from the time  $\Delta t''_i$  in order to determine  $K'$  and  $K''$ . /-Abstracter's note:  
Complete translation. 7

Card 2/2

MEL'KANOVITSKIY, I.M.

Subsurface geology of the Tashkent region, Kyzyl Kum, and adjacent regions based on geophysical data. Sov.geol. 5 no.2:17-28 F '62.

(MIRA 15:2)

1. Sredne-Aziatskiy nauchno-issledovatel'skiy institut geologii i mineral'nogo syr'ya.

(Kyzyl Kum—Geology)(Tashkent Province—Geology)

MEL'KANOVITSKIY, I.M.

Geological interpretation of materials on subsurface geophysical studies of the closed part of the Tashkent region. Uzb.geol.zhur. 6 no.1:16-25 '62. (MIRA 15:4)

1. Sredneaziatskiy nauchno-issledovatel'skiy institut geologii i mineral'nogo syr'ya, Tashkent.  
(Tashkent region--Prospecting--Geophysical methods)

MEL'KANOVITSKIY, I. M.; AKHMATOV, P. G.; LEPIGOVA, E. L.

Magnetic properties of rocks in the eastern part of Central Asia.  
Uzb. geol. zhur. 6 no.5:83-85 '62. (MIRA 15:10)

1. Sredneaziatskiy nauchno-issledovatel'skiy institut geologii  
i mineral'nogo syr'ya, Tashkent.

(Soviet Central Asia—Rocks—Magnetic properties)



MEL'KANOVITSKIY, I.M.; SHAPIRO, V.B.

Averaging gravity anomalies from two-dimensional bodies. Uch.  
zap. SAIGIMSa no. 7:283-286 '62. (MIRA 17:2)

1. Artemovskaya geofizicheskaya ekspeditsiya.

MEL'KANOVITSKIY, I.M.; SHAPIRO, V.B.

Averaging gravity anomalies from two-dimensional bodies. Uch. zap.  
SAIGIMSa no.7:283-286 '62. (MIRA 17:2)

1. Sredneaziatskiy nauchno-issledovatel'skiy institut geologii i mineral'nogo syr'ya, Tashkent.

L 15558-63

EWI(1)/BDS/ES(v)

AFFTC

Pg-4/Po-4/Pe-4/Pq-4

TF

ACCESSION NR: AR3002963

8/0169/63/000/005/D018/D018

SOURCE: RZh. Geofizika, Abs. 5D99

71

AUTHOR: Orlovskiy, A. S.; Mel'kanovitskiy, I. M.; Belelovskiy, M. L.

TITLE: Simplified procedures for calculating the gravitational effect of local relief (in the instance of Eastern Central Asia)

CITED SOURCE: Uch. zap. Sredneaz. n.-i, in-t geol. i mineral'n. syr'ya, vyp. 7, 1962, 183-191

TOPIC TAGS: gravitational correction, relief, two-dimensional transparent grid, Young, Barton, Gamburtsev type, parallel profile, Lukavchenko method, quadratic system

ABSTRACT: Ways are examined of simplifying the methods of determining gravitational corrections for this relief of a region, which are reduced to the following: 1) cutting the network of calculation points in sections during the increasing of the radius for calculating the effect of the relief; 2) simplification of the technique of instrumental determination of corrections in a radius up to 100 - 200 m; 3) use of two-dimensional transparent grids (Young, Barton, Gamburtsev type) for

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ACCESSION NR: AR3002963

calculating the effect of relief possessing elongated forms; 4) application of the method of parallel profiles in order to calculate the effect of relief having arbitrary form; 5) simplification of the Lukavchenko method by analytic determination of the correction for relief in a radius up to 500 m using 1:100,000 scale topographic maps and by enlarging zones and sectors removed from the center of the grid. It is pointed out that the choice of one method or the other is determined by the required accuracy of the evaluation of the corrections, by the forms of relief, and by the presence of topographic maps of various scales. Considerable progress in streamlining the determination of corrections for relief of a region will, in the authors' opinion, be made by switching to a quadratic- or hexagonal nodal system for the composition of altitudes on topographic maps using electronic computers.

A. Lozinskaya

DATE ACQ: 12Jun63

SUB CODE: PH

ENCL: 00

Card 2/2

MEL'KANOVITSKIY, I.M.

Calculation of the correction for the attraction of the intervening  
layer of masses with varying density value. Razved.1 prom.  
geofiz. no.43:65-71 '62. (MIRA 15:8)  
(Gravity prospecting)

MEL'KANOVITSKIY, I.M.

Alteration of physical properties of rocks in the eastern  
part of Central Asia. Sov. geol. 6 no.11:26-39. H '63.

(MIRA 17:1)

1. Sredneaziatskiy nauchno-issledovatel'skiy institut  
geologii i mineral'nogo syr'ya.

MEL'KANOVITSKIY, I.M.; Prinimala uchastiye: LEPIGOVA, E.L.

Physical properties of Pre-Mesozoic rocks in the northern  
Tien Shan. Izv. AN SSSR. Ser. geol. 29 no. 2:44-54 F '64.  
(MIRA 17:5)

1. Sredneaziatskiy nauchno-issledovatel'skiy institut geologii  
i mineral'nogo syr'ya, Tashkent.

AKHMATOV, P.G.; MEL'KANOVITSKIY, I.M.

Physical properties of Paleozoic rocks in the southern zone of  
the Tien Shan. Uzb. geol. zhur. 8 no.4:76-85 '64. (MIRA 18:5)

1. Uzbekskiy geofizicheskiy trest i Sredneaziatskiy nauchno-  
issledovatel'skiy institut geologii i mineral'nogo syr'ya,  
Tashkent.



L 11345-67 EWT(1) GW/GD  
ACC-NR: AT6028366

SOURCE CODE: UR/0000/65/000/000/0015/0025

14

~~Author: Mel'kanovitskiy, I. M.~~

ORG: none

12

TITLE: Abyssal geological structure of the Soviet Tien-Shan based on geophysical data

SOURCE: International Geological Congress. 22d, New Delhi, 1964. Geologicheskiye rezul'taty prikladnoy geofiziki (Geological results of applied geophysics); doklady sovetских geologov, problema 2. Moscow, Izd-vo Nedra, 1965, 15-25

TOPIC TAGS: Mohorovicic discontinuity, geologic survey, tectonics / Tien-Shan

ABSTRACT: Using geophysical data, the author attempts to define the structure of Central Asia, a large part of which is overlaid with a thick cover of recent sediments. The Tien-Shan region is subdivided into the folded basement of Hercynian and Caledonian formations and the platform overburden consisting mainly of terrigenous Mesozoic and Cenozoic sediments, up to 8-10 km thick. The principal structural-facial zones of the folded basement can be traced from the mountain area to the depression area. In the eastern part of the region their strike is latitudinal, while in the western part it is northwesterly. As a rule, the zones are separated by deep faults. The Alpine orogenesis transformed the Southeastern

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ACC NR: AT6028366

0

part of Tien-Shan into an active platform with specific geophysical features such as higher density of the overburden sediments, great thickness of the Earth's crust, and higher seismicity. The main strike of the Alpine structures coincides with the lines of equal depth to the Moho discontinuity, the depth of which has been determined from a combined interpretation of seismic and gravity data. In the transition area, where the Turanian foundation is an active platform, the Hercynian and Alpine structural patterns do not coincide. Orig. art. has: 3 figures.

SUB CODE: 08, 07/ SUBM DATE: 06Jan65/ ORIG REF: 027/

Card: 2/2 *lv*

MELKAYA, Ye.N.; KONOVALOVA, K.I.; GORDON, L.V.; SKVORTSOV, S.O.

Means for increasing production of furfurole oils in wood chemistry plants. *Gidroliz. i lesokhim.prom.* 11 no.8:20-21 ' 58.  
(MIRA 11:12)

1. Syavskiy lesokhimicheskiy kombinat (for Melkaya, Konovalova).
2. Tsentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut (for Gordon, Skvortsov).  
(Furaldehyde)

MELKAYA, Ye.N.; OSIPOVA, Ye.V.

Double-column continuous apparatus for processing black  
acid. Gidroliz.i lesokhim.prom. 12 no.6:13-16 '59.  
(MIRA 13:2)

1. Syavskiy lesokhimicheskiy kombinat.  
(Syava--Acetic acid)

L 16389-65 EWT(m)/EWP(t)/EWP(b) IJP(c)/ESD(gs)/ESD(t)/SSD/AFWL/ASD(a)-5/ASD(m)-3/  
ACCESSION NR: AP4049135 AS(mp)-2/RAEM(a) S/0020/64/159/001/0074/0076  
JD

AUTHORS: Sokolov, O. G.; Mel'ker, A. I.

TITLE: Invar behavior of iron-manganese alloys B

SOURCE: AN SSSR. Doklady\*, v. 159, no. 1, 1964, 74-76

TOPIC TAGS: iron alloy, coefficient of thermal expansion, austenitic steel, antiferromagnetism

ABSTRACT: The purpose of the investigation was to obtain more details on an earlier result by the authors (with S. I. Sakhin, Sborn. Metallovedeniye, v. 7, 1963, p. 86) that medium-carbon iron-manganese nonferromagnetic alloys have an anomalous decrease in the coefficient of thermal expansion (invar character) in the austenitic region. The thermal expansion of iron-manganese alloys containing 0.02 to 56% manganese and 0.06% carbon were investigated. The samples were heat

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L 16389-65

ACCESSION NR: AP4049135

treated in two ways: quenching from 1175° in water, and equilibrium annealing at 1175° for 120 hours with cooling to room temperature at 1.5--2°/minute. The phase composition was determined by an x-ray structure analysis. Isotherms of the linear expansion coefficients of various alloys are shown in Fig. 1 of the Enclosure. Although the decrease in the expansion coefficient in alloys with more than 16% Mn is due in part to the decrease in the  $\epsilon$ -phase content, the principal cause is the anomalous thermal expansion of the austenite, particularly at an Mn content above 30%, when there is no  $\epsilon$  phase. Unlike invar alloys based on Fe-Ni, Fe-Pt, and Fe-Pd, the manganese alloys with invar properties are not ferromagnetic. An antiferromagnetic origin is ascribed to this anomaly. This phenomenon is stable, so that the Fe-Mn diagram of state should have on it a new line corresponding to the temperatures of transition from the antiferromagnetic to the paramagnetic state. This report was presented by G. V. Kurdymov. Orig. art. has: 4 figures and 1 table.

Card 2/4

L 16389-65

ACCESSION NR: AP4049135

ASSOCIATION: None

SUBMITTED: 20Apr64

ENCL: 01

SUB CODE: SS, MM

NR REF SOV: 006

OTHER: 004

Card 3/4

I. 16389-65

ACCESSION NR: AP4049135

ENCLOSURE: 01

0

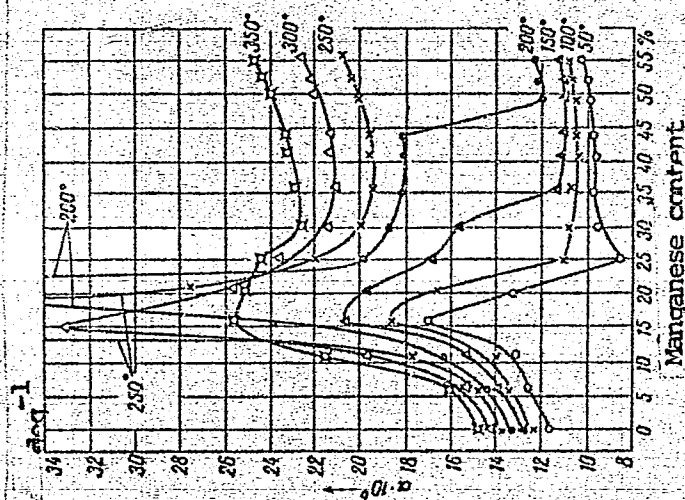


Fig. 1. Isotherms of the linear expansion coefficient of iron-manganese alloys.

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(N) L 11630-66 EWT(m)/EWP(w)/EWP(v)/T/EWP(t)/EWP(k)/EWP(b)/EWA(h)/EWA(d)/

ACC NR: AT6000933 IJP(c) JD/HM SOURCE CODE: UR/2563/65/G00/251/0087/0091

AUTHOR: Mel'ker, A. I. <sup>46</sup>  
<sup>44</sup>  
<sup>B+1</sup>

ORG: Leningrad Polytechnic Institute im. M. I. Kalinin (Leningradskiy politekhnicheskii institut)

TITLE: Mechanical properties of the  $\epsilon$ - and  $\gamma$ - phases in iron-manganese alloys <sup>27</sup> <sup>21.55</sup>

SOURCE: Leningrad. Politekhnikheskii institut. Trudy. no. 251. 1965. Metal-lovedeniye (Metal science), 87-91 <sup>55</sup>

TOPIC TAGS: ferrous alloy, manganese containing alloy, alloy phase <sup>diagram</sup>  
~~phase diagram~~

ABSTRACT: Induction-melted ingots of six Fe-Mn alloys containing approximately 20% Mn and 0.07—0.9% C were preforged and rolled into plates which were annealed at 1175C for 1 hr and quenched in water or refrigerated for 3 hr in liquid nitrogen. Microscopic and x-ray diffraction analyses showed that the quantity of  $\epsilon$ -phase decreases with increasing C content: 50% at 0.07% C to 30% at 0.14% C. Heats with 0.28, 0.42, and 0.53% C contained only traces of  $\epsilon$ -phase. No  $\epsilon$ -phase was identified in the alloy with 0.9% C. The increase of C concentration moves the  $\gamma + \epsilon$  transformation in the direction of lower temperatures. Refrigeration in liquid nitrogen increased the  $\epsilon$ -phase content; it was found even in alloy with 0.9% C. In alloys with 0.07, 0.14, and 0.28% C, the  $\epsilon$ -phase content increased by 6, 4, and 3%,

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ACC NR: AT6000933

2

respectively. Variations in the  $\epsilon$ -phase content have little effect on the properties determined by the  $\gamma$ -phase alone, such as tensile strength, elongation, and reduction of area. However, the properties which depend on both phases, such as notch toughness, hardness, and yield strength, were changed considerably, even by the rather small increase in the  $\epsilon$ -phase content caused by refrigeration. Refrigeration of the alloy containing 0.2% C increased the hardness by 10 kg/mm<sup>2</sup> and the yield strength by 6 kg/mm<sup>2</sup> and lowered the notch toughness by 4 mkg/cm<sup>2</sup>. The  $\epsilon$ -phase is relatively hard and brittle. It has a tensile strength of 55 kg/mm<sup>2</sup>, a yield strength of 52 kg/mm<sup>2</sup>, a reduction of area of 8%, a notch toughness of 7 mkg/cm<sup>2</sup>, a hardness of 260 kg/mm<sup>2</sup>, and an elasticity modulus of 23,550 kg/mm<sup>2</sup>. The corresponding figures for the  $\gamma$ -phase are 103 kg/mm<sup>2</sup>, 20 kg/mm<sup>2</sup>, 34%, 18 mkg/cm<sup>2</sup>, 200 kg/mm<sup>2</sup> and 13,950 kg/mm<sup>2</sup>. Orig. art. has: 3 figures and 2 tables. [WW]

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 003/ ATD PRESS: 4/77

Card

2/2

MEL'KEV, Yu.N.

Specific vaccination against cancer. Vop. onk. 6 no. 8:97-110 Ag '60.  
(MIRA 14:1)

(CANCER) (VACCINATION)

MEL'KHEYEV, M. N.

Cand. Geographic Sci

"Basin of the Iya River, and Prospects for the Utilization of  
Its Water Economy." Sub 29 Jun 51, Moscow Order of Lenin State U  
imeni M. V. Lomonosov.

Dissertations presented for science and engineering degrees in  
Moscow during 1951.

SO: Sum. No. 480, 9 May 55

USSR/Geography

Card 1/1

Author : Mel'kheev, M. N. Cand. of Geogr. Sciences

Title : Multistage ice sheath on rivers

Periodical : Priroda, 5, page 114, May 1954

Abstract : Many mountain rivers of the Eastern Sayan have several levels (floors) of ice sheaths each of several cm in thickness and divided by empty (waterless) spaces. The ice on the rivers Urik, Onot, Iya is formed of two and three layers with empty space between the layers. The formation of multilayer ice sheaths on a river is most likely due to the spreading of permafrost in the basin of the river. Such ice layer is called by the local population "dry ice".

Institution : State Teachers Institute, Tulunsk, USSR

Submitted : ....

MEL'KHEYEV, M.N.

Regional characteristics of weather forecasting. Geog. v  
shkole 18 no.3:11-15 My-Je '55. (MIRA 8:9)  
(Weather forecasting)

TSYS', P.N.; KALESNIK, S.V.; SOKOLOV, N.N.; CHOCHIA, N.S.; PROTOPOPOV, A.P.; ZABELIN, I.M.; GVOZDNETSKIY, N.A.; YEFREMOV, Yu.K.; KARA-MOSKO, A.S.; KOZLOV, I.V.; SOLNTSEV, N.A.; ISACHENKO, A.G.; ARMAND, D.L.; MIROSHNICHENKO, V.P.; PETROV, K.M.; KAZAKOVA, O.N.; MIKHAYLOV, N.I.; PARMUZIN, Yu.P.; GERENCHUK, K.I.; MIL'KOV, F.N.; TARASOV, F.V.; NIKOLAYEV, V.N.; SOBOLEV, L.N.; RYBIN, N.N.; DUMIN, B.Ya.; IGNAT'YEV, G.M.; MEL'KHEYEV, M.N.; SANEBLIDZE, M.S.; VASIL'YEVA, I.V.; PEREVALOV, V.A.; BASALIKAS, A.B.

Discussion at the conference on studying land forms. Nauk. zap. L'viv. un., 40:231-267 '57. (MIRA 11:6)  
 1. L'vovskiy gosudarstvennyy universitet (for TSys', Gerenchuk, Dumin).  
 2. Laboratoriya aerometodov AN SSSR, Leningrad (for Sokolov, Mirosnichenko, Petrov). 3. Institut geografii AN SSSR, Moskva (for Armand, Sobolev). 4. Gosudarstvennyy universitet, Voronezh (for Mil'kov, Tarasov). 5. Leningradskiy gosudarstvennyy universitet (for Chochia, Isachenko, Kazakova). 6. Komissiya okhrany prirody AN SSSR, Moskva (for Protopopov). 7. Gosudarstvennyy universitet, Chernovtsy (for Rybin). 8. Gosudarstvennyy universitet, Irkutsk (for Mel'kheyev). 9. Gosudarstvennyy pedagogicheskiy institut im. V.I. Lenina, Moskva (for Vasil'yeva). 10. Bol'shaya Sovetskaya Entsiklopediya (for Zabelin). 11. Gosudarstvennyy universitet, Tbilisi (for Saneblidze). 12. Moskovskiy gosudarstvennyy universitet (for Gvozdetskiy, Solntsev, Mikhaylov, Parmuzin, Nikolayev, Ignat'yev). 13. Torgovo-ekonomicheskii institut, L'vov (for Perevalov). 14. Gosudarstvennyy institut im. Kapsukasa, Vil'nyus (for Basalikas). 15. Muzei zemlevedeniya Moskovskogo gosudarstvennogo universiteta (for Yefremov, Kozlov). 16. Srednyaya shkola No.13, Kiyev (for Kara-Mosko). (Physical geography)

~~MEL' KHEYEV, M. N.~~

Katochkin Shar and Yugorskiy Shar. Geog. v shkole 21 no. 4:53  
J1-Ag '58. (MIRA 11:7)

(Names, Geographical)



MEL'KHEYEV, M.N.

Local geographical terms of Eastern Siberia. Trudy Irk. un.  
24:67-97 '58. (MIRA 14:7)  
(Siberia, Eastern--Geography--Terminology)

*Mel'kheyev, M.N.*

12-1-10/26

AUTHOR: Mel'kheyev, M.N.

TITLE: Conditions of Formation and the Structural Types of Ground Ice in East Siberian Rivers (Ob usloviyakh obrazovaniya i struktur-nykh tipakh donnogo l'da na rekakh vostochnoy Sibiri)

PERIODICAL: Izvestiya Vsesoyuznogo Geograficheskogo Obshchestva, 1958, 90 /  
# 1, pp 63-66 (USSR)

ABSTRACT: The main conditions for ground-ice formation on east Si-berian rivers are open water surfaces and permanent low air temperatures.

Observations have shown that there are two structure types of ground ice which are formed in certain surroundings: coarse-crystalline ice, of 0.477 specific weight, occurring in water with a pebble bed and normal, quiet flow; and the fine crystal-line type, occurring in shallow, fast running water, of 0.662 specific weight.

Ice covers on the water surface delay ground-ice formation as temperatures are different in open and frozen waters, and ground water of a higher temperature penetrates into the river bed. Ground-ice under frozen covers often develops in the form of the so-called sludge-ice (shuga). The east Siberian

Card 1/2

MEL'KHEYEV, M.N.

"Dictionary of local geographical terms" by E. and V. Murzaev. Re-  
viewed by M.N. Mel'kheev. Geog. v shkole 23 no. 2: 95-96  
Mr-Ap '60. (MIRA 13:6)

(Geography--Terminology)  
(Murzaev, E.) (Murzaev, V.)

MEL'KHEYEV, Matvey Nikolayevich; YEROFEYEV, I.A., red.; KONSHINA, V.A.,  
~~red.; DRANNIKOVA, M.S., tekhn. red.~~

[Geographic names; toponymy dictionary; textbook for teachers]  
Geograficheskie imena; toponimicheskii slovar'. Posobie dlia  
uchitelei. Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv.  
RSFSR, 1961. 99 p. (MIRA 15:2)  
(Names, Geographical--Dictionaries)

MEL'KHEYEV, Matvey Nikolayevich; LYSANKO, A.S., red.

[Origin of geographical names in Irkutsk Province]  
Proiskhozhdenie geograficheskikh nazvanii Irkutskoi  
oblasti. Irkutsk, Vostochno-Sibirskoe knizhnoe izd-  
vo, 1964. 88 p. (MIRA 17:7)

BAYKOV, B.K.; MELKHINA, V.P.; Primali uchastiye: VASIL'YEV, A.S.;  
KATSENELENBAUM, M.S.; KOMAROVA, A.A.; ZHIGULINA, L.A.; TERNOVSKAYA,  
L.N.; YUSHKO, Ya.K.; CHUMAK, K.I.; GUSEL'NIKOVA, E.L.; KETOVA, O.N.

Hygienic characteristics of air pollution in Gubakha and its effect  
on health of the population. Uch. zap. Mosk. nauch.-issl. inst. san.  
i gig. no.6:21-25 '60. (MIRA 14:11)  
(NIZHNYAYA GUBAKHA—AIR—POLLUTION)

ZEMSKOV, I.F.; STEPANOV, A.S.; MELKIKH, A.V.

Use of foam apparatus for fine sanitary purification and removal of toxic carbon dust from air exiting from the adsorber with "fluidized" beds of sorbents. Zhur.prikl.khim. 35 no.11:2467-2472 N '62.

(MIRA 15:12)

1. Dzerzhinskiy filial Gosudarstvennogo nauchno-issledovatel'skogo instituta po promyshlennoy i sanitarnoy oochistke gazov.  
(Air—Purification) (Dust collectors)

DIOMIDOV, A.P., dotsent; MELIKH, V.I., inzh.

Graphic method of selecting impurity coefficients in estimating  
the output of coal preparation products. Izv. vys. ucheb.  
zav.; gor. zhur. no.9:141-144 '60. (MIRA 13:9)

1. Sverdlovskiy gornyy institut im. V.V. Vakhrusheva. Rekomend.  
kafedroy obogashcheniya poleznykh iskopayemykh.  
(Coal preparation)



DIOMIDOV, A.P., dotsent; MELIKH, V.I., inzh.

Technical and economic basis for determining the optimum  
parameters of ore-dressing equipment. Izv.vys.ucheb.zav.;  
gor.zhur. no.3:152-155 '61. (MIRA 15:4)

1. Sverdlovskiy gornyy institut imeni V.V.Vakhrusheva;  
rekommendovana kafedroy obogashcheniya iskopayemykh Sverdlovskogo  
gornogo instituta.

(Ore dressing—Equipment and supplies)

DIOMIDOV, A. P., dotsent; MELIKH, V. I., inzh.; VOLEGOV, A. V., inzh.;  
SHAGABUTDINOV, G. N., starshiy prepodavatel'

Estimation of the work efficiency of drum screens employed in  
classifying asbestos concentrates. Izv. vys. ucheb. zav.;  
gor. zhur. 5 no.8:169-175 '62. (MIRA 15:10)

1. Sverdlovskiy gornyy institut imeni Vakhrusheva. Rekomendovana  
kafedroy obogashcheniya poleznykh iskopayemykh.

(Screens(Mining)) (Asbestos)

DIOMIDOV, A.P., dotsent; MELKIKH, V.I., inzh.

Dynamic analysis of an oscillating screen in an inclined plane.

Izv. vys. ucheb. zav.; gor. zhur. 6 no.3:173-179 '63. (MIRA 16:10)

1. Sverdlovskiy gornyy institut imeni V.V.Vakhrusheva.

Rekomendovana kafedroy obogashcheniya poleznykh iskopayemykh.

DIOMIDOV, A.P., dotsent; MELKIKH, V.I., inzh.

Successive and parallel operation of mechanical flotation machines. Izv. vys. ucheb. zav.; gor. zhur. 6 no.6:177-182 '63.  
(MIRA 16:8)

1. Sverdlovskiy gornyy institut imeni V.V. Vakhrusheva.  
Rekomendovana kafedroy obogashcheniya poleznykh iskopayemykh.  
(~~Flotation~~—Equipment and supplies)

MELNIKH, V.I., inzh.

Kinetics of flotation in the light of statistics laws. Izv. vys. ucheb. zav.; gor. inzh. " no. 9: 185-186 '64. (MIRA 18.1)

1. Sverdlovskiy gornyy inzh. inst. imeni V.V. Vekhrasheva. Rekomendovana kafedroy obogashcheniya poleznykh iskopyemykh.

MELKIEH, Z., kandydat filalogichnykh nauk.

V.G.Korolenko; on the 35th anniversary of his death. Rab.i  
sial. 32 no.12:16 D '56. (MLRA 9:12)  
(Korolenko, Vladimir Galaktonovich, 1853-1921)

MEL'KIKYAN, N. V.

USSR/Miscellaneous - Timber Industry

Card 1/1

Authors : Chulkov, V. D., Chistyakov, N. N., and Mel'kikyan, N. V.

Title : A Cyclic Organization of Tree-Felling in the Maksatikhinsk Forest.

Periodical : Mekh. Trud. Rab. Ed. 3, 44 - 47, Apr - May 1954

Abstract : Methods for planning efficient tree-felling operations, charts indicating the productivity of individual working cadres and their earnings, and the machinery used in the above operation. Tables; graphs.

Institution : ....

Submitted : ....

ACCESSION NR: AP4017367

S/0126/64/017/002/0296/0298

AUTHORS: Magat, L. M.; Shur, Ya. S.; Melkiseva, E. N.

TITLE: The relation of the coercive force to the initial decomposition stages in an oversaturated solid solution in the alnico alloys

SOURCE: Fizika metallov i metallovedeniye, v. 17, no. 2, 1964, 296-298

TOPIC TAGS: alnico alloy, alni alloy, niobium-alnico alloy, alloying, oversaturated solid solution, solution decomposition, coercive force, modulation period, Guignet-Preston zone, tempering

ABSTRACT: The following alloys were studied by the method of x-ray analysis: alni (30% Ni, 14% Al); alnico (14% Ni, 8% Al, 24% Co, 3% Cu); Nb-alnico (14% Ni, 8% Al, 24% Co, 3% Cu, 0.9% Nb). The size of the spherical Guignet-Preston zones was determined from the scattering of x-rays in the Laue diffraction pattern, and the modulation period was determined from the position of satellites on the x-ray patterns of rotation. The coercive force was measured ballistically. Figure 1. on the Enclosure shows the results obtained. It was ascertained that the decomposition of a solid solution during tempering started with the formation of the Guignet-Preston zones which were replaced subsequently by a periodical modulation structure.

Card 1/6



ACCESSION NR: AP4017367

The growth of the coercive force during tempering started during the formation of the Guignet-Preston zones and reached its maximum during the second stage at a certain optimal magnitude of the modulation period. The above conclusions were true for all the types of the alloy studied. It was also proved that the satellites observed on the x-ray patterns of rotation correspond to a periodical modulated structure. Orig. art. has: 2 tables and 3 figures.

ASSOCIATION: Institut fiziki metallov AN SSSR (Institute of Physics of Metals, AN SSSR)

SUBMITTED: 10Jul63

DATE ACQ: 18Mar64

ENCL: 01

SUB CODE: ML

NO REF SOV: 004

OTHER: 004

Card 2/3

L 43855-55 EWT(1)/EPA(s)-2/EWT(m)/EWA(d)/T/EWP(t)/EPA(bb)-2/EWP(z)/  
EWP(b)/EWA(c) Pt-7 IJP(c) JB

ACCESSION NR: AP4048770

S/0126/64/018/004/0540/0552

AUTHOR: Yermolenko, A. S.; Melkiseva, E. N.; Shur, Ya. S.

TITLE: Dependence of the effect of thermomagnetic treatment on the orientation  
of the magnetic field in single crystals of an alnico type alloy

SOURCE: Fizika metallov i metallovedeniye, v. 18, no. 4, 1964, 540-552

TOPIC TAGS: thermomagnetic treatment, alnico alloy, magnetostatic energy,  
precipitation size

ABSTRACT: The authors studied the mechanical angular momentum in a magnetic field of single crystal discs made of alnico type alloys with surfaces in the crystallographic planes (001) and (110) after quenching and at various stages of annealing. The magnetic field was oriented in various crystallographic directions. The effect of the magnetic field was investigated with an electron microscope. It is concluded that the shape and orientation of precipitations are determined by the magnetostatic energy and by the surface and elastic energy. The ratio of the magnetostatic to the nonmagnetic energy depends on the size of the precipitations.

Card 1/2

L 43855-65

ACCESSION NR: AP4048770

the mutual orientation of the magnetization vector, the long axis of the precipitations, and the crystallographic axes. The authors are grateful to L. M. Magat for the determination of the orientation of the single crystals. Orig. art. has: 5 figures and 1 table. 2

ASSOCIATION: Institut fiziki metallov AN SSSR (Institute of the Physics of Metals AN SSSR)

SUBMITTED: 03Feb84

ENCL: 00

SUB CODE: MM, SS

NR REF SOV: 003

OTHER: 012

Card 2/2

GULYAYEV, K.N.; LAPTEV, A.D.; MALAMID, M.M.; MELKISHEVA, M.G.; NADEZHGIN,  
Ye.D.; GLAZKOV, A.P., otv.red.

[Industry of Vologda Province; on the fortieth anniversary of  
the Great October Socialist Revolution] Promyshlennost' Volo-  
godskoi oblasti; k 40-letiu Velikoi Oktiabr'skoi sotsialisticheskoi  
revoliustii. Vologda, Obl.knizhnaya red., 1957. 92 p.  
(MIRA 13:3)

(Vologda Province--Economic conditions)